



MARKED-UP VERSION OF AMENDED CLAIM 1

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TECHNOLOGY CENTER 2800

1. (twice amended) A current sensor [working in accordance with the compensation principle] having an output and comprising:

a primary winding through which the current to be measured flows, creating a magnetic field,

a secondary winding, through which compensation current flows, which generates a magnetic field compensating the primary winding, whereby the primary winding and the secondary winding combined form a converter with a certain resonance [frequencies] frequency,

a terminating resistor connected in [a] series to the secondary winding,

sensor means, which are exposed to the resulting magnetic field of the primary and secondary [coils] windings,

a booster circuit, which is [down-streamed to] closer to the output than the sensor means [at the input], and which feeds the compensation current to the secondary winding via the terminating resistor [at the output], whereby the compensation current is pulse-duration modulated with a timing frequency above the resonance frequency of the converter, and

a low-pass filter arrangement for stabilizing the pulse-duration modulated compensation current, which is [down-streamed to] closer to

the output than the booster circuit, comprising inductances and capacitances, which possesses a filter frequency threshold below the resonance frequency of the converter[, ] and below the timing frequency of the booster circuit, as well as excessive resonance, whereby the excessive resonance of the low-pass filter arrangement is damped by an RC element connected in parallel to the secondary winding and the terminating resistor.